FIGURE 1A-1E

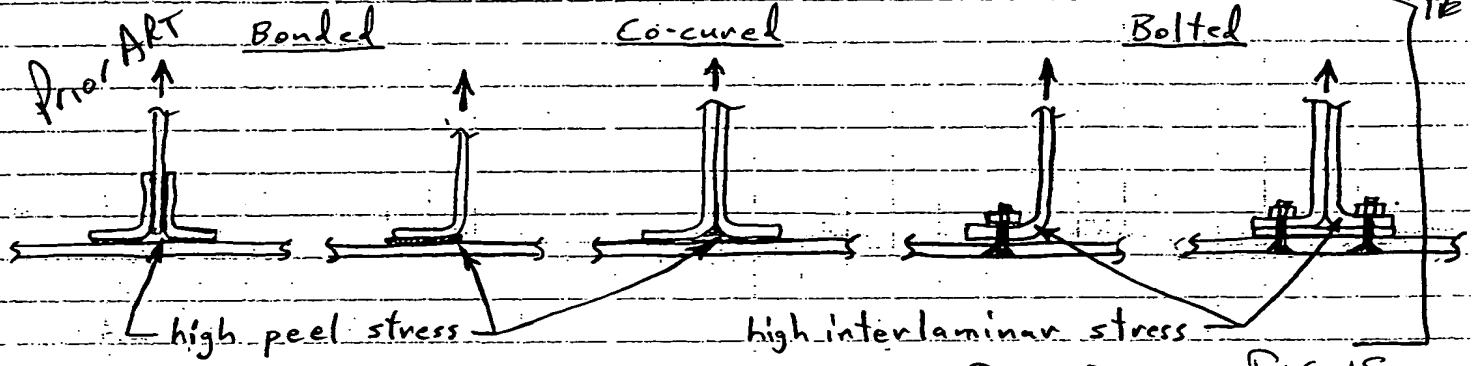


FIG. 1A FIG. 1B FIG 1C FIG 1D FIG. 1E

FIGURE 2

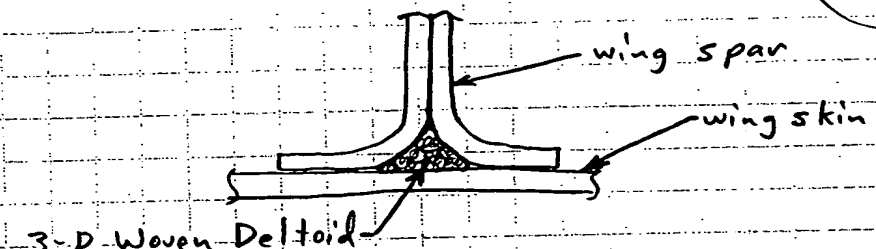
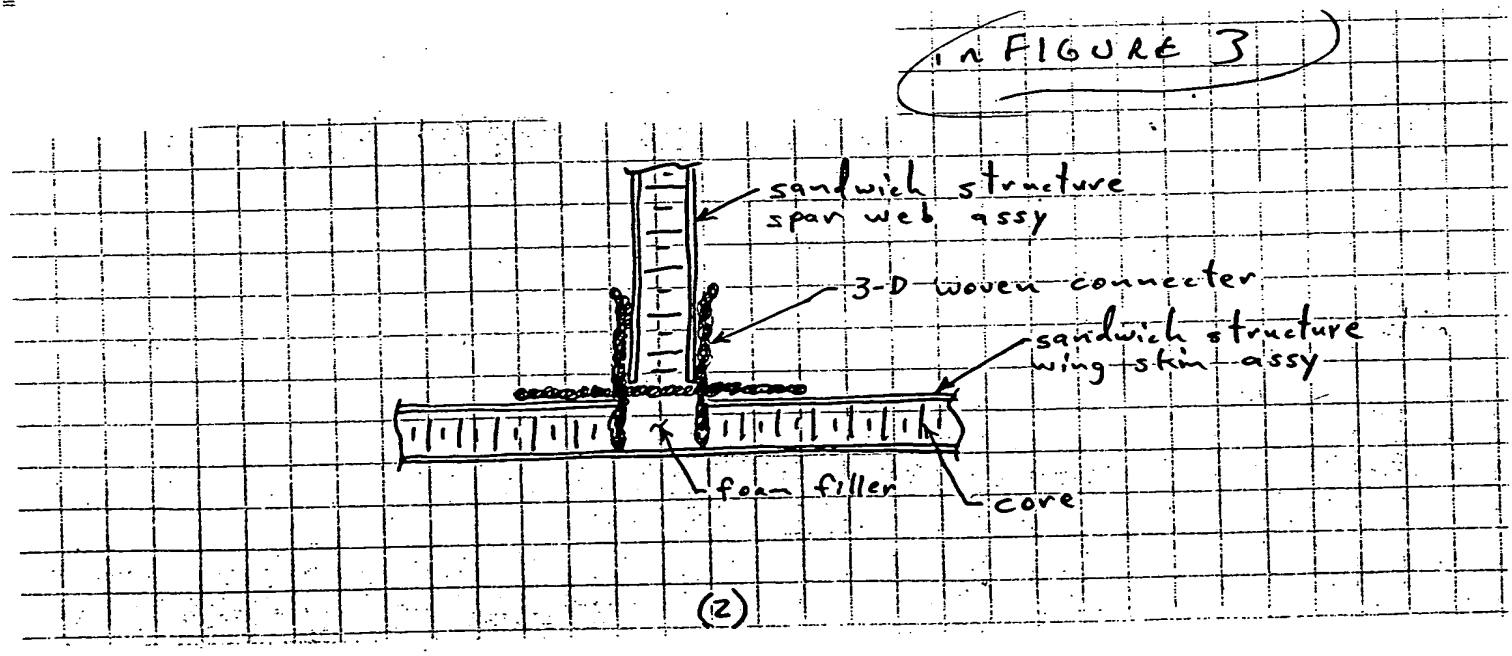


FIG 2

FIGURE 3



(12)

FIG 3

10 needs to show the combination of 12, 16 and 14. It is not the whole thing shown

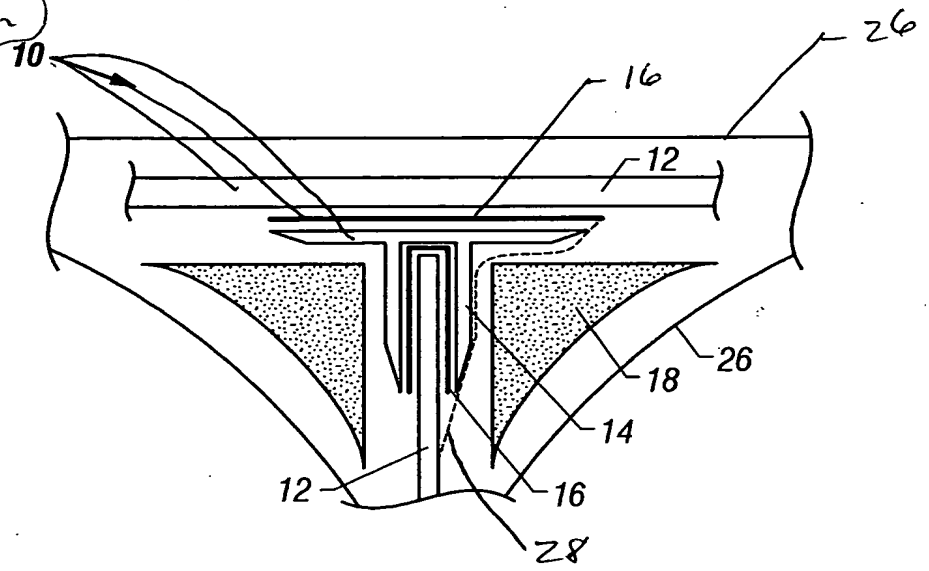


FIG. 1 4

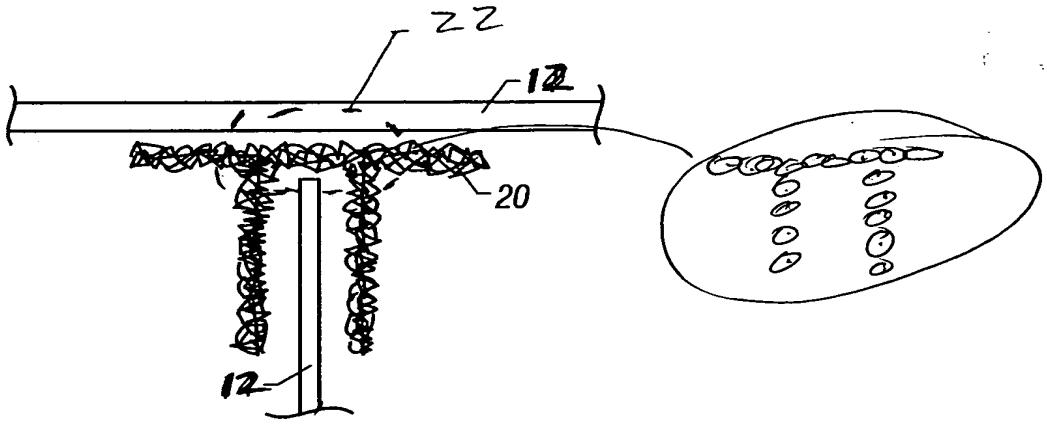


FIG. 2 5

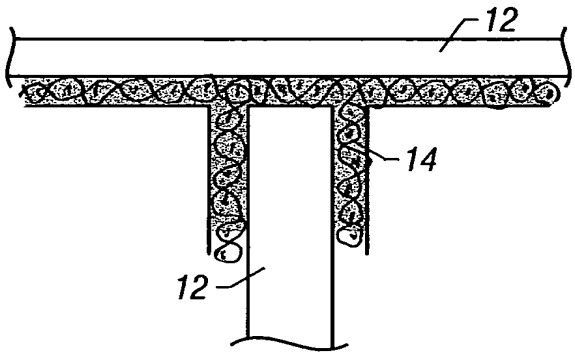


FIG. 3A

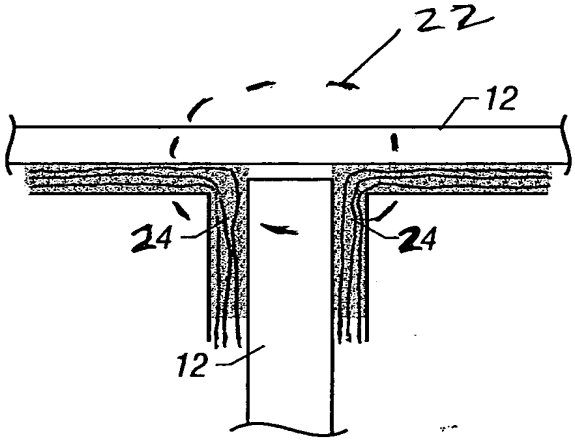


FIG. 3B

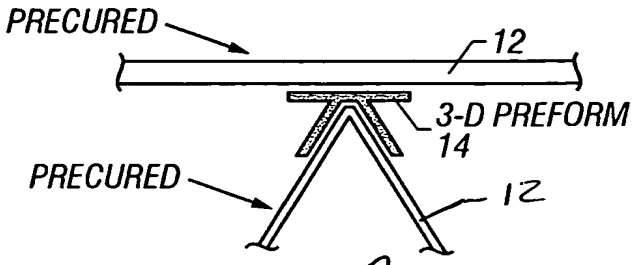


FIG. 4A

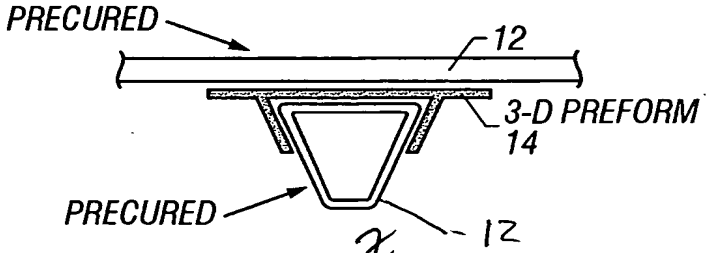


FIG. 4B

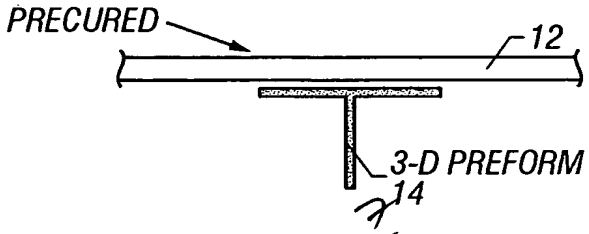


FIG. 4C

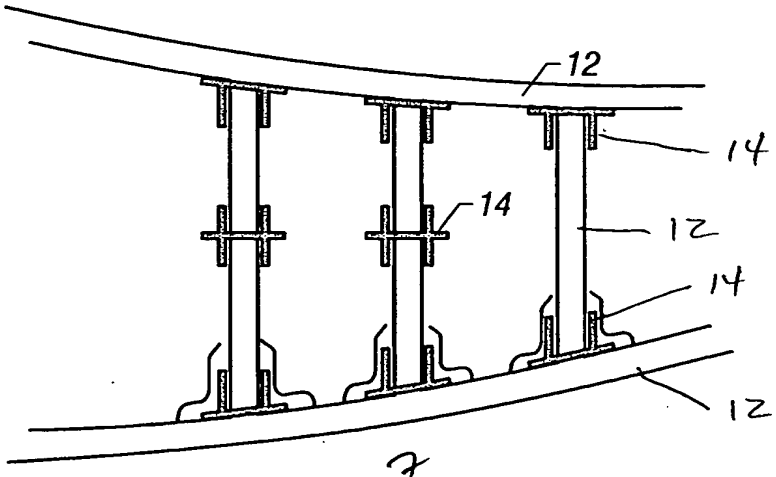


FIG. 4D

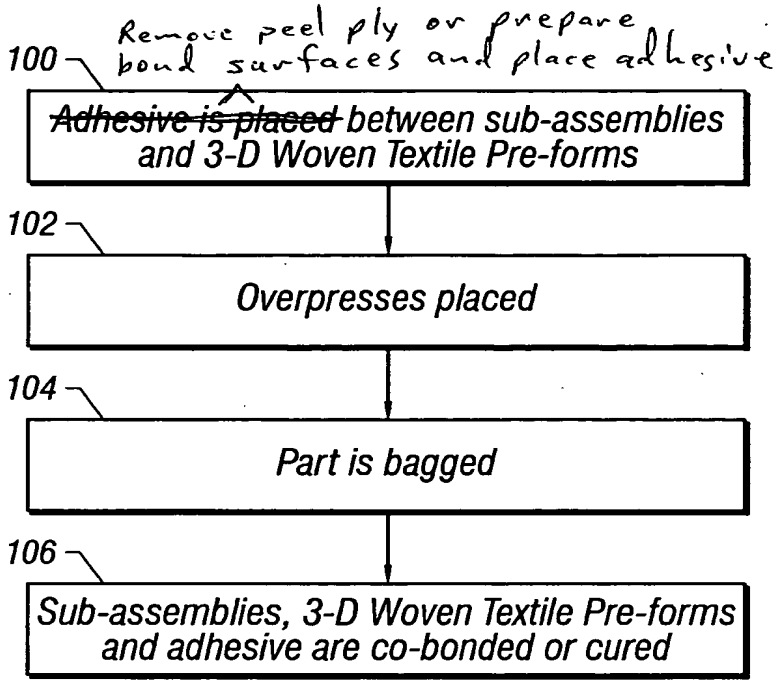

Remove peel ply or prepare bond surfaces and place adhesive
100
~~Adhesive is placed~~ between sub-assemblies and 3-D Woven Textile Pre-forms
102
Overpresses placed
104
Part is bagged
106
Sub-assemblies, 3-D Woven Textile Pre-forms and adhesive are co-bonded or cured

FIG. 5

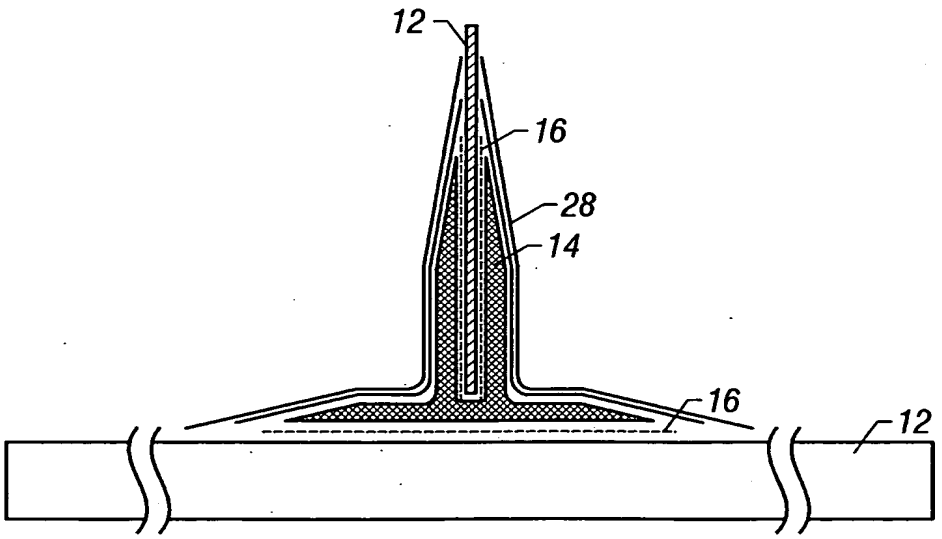
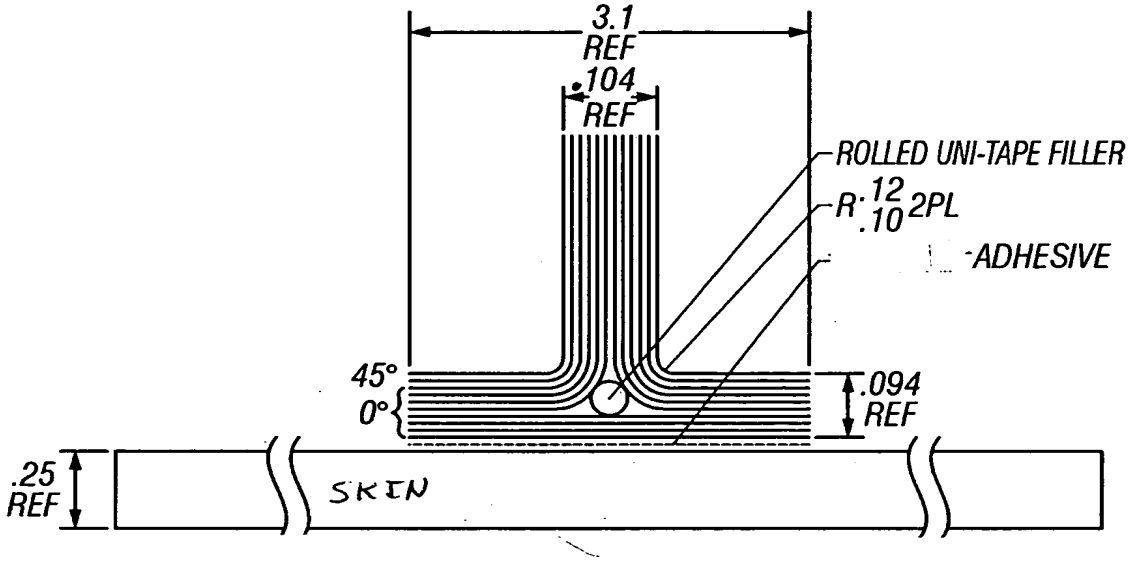
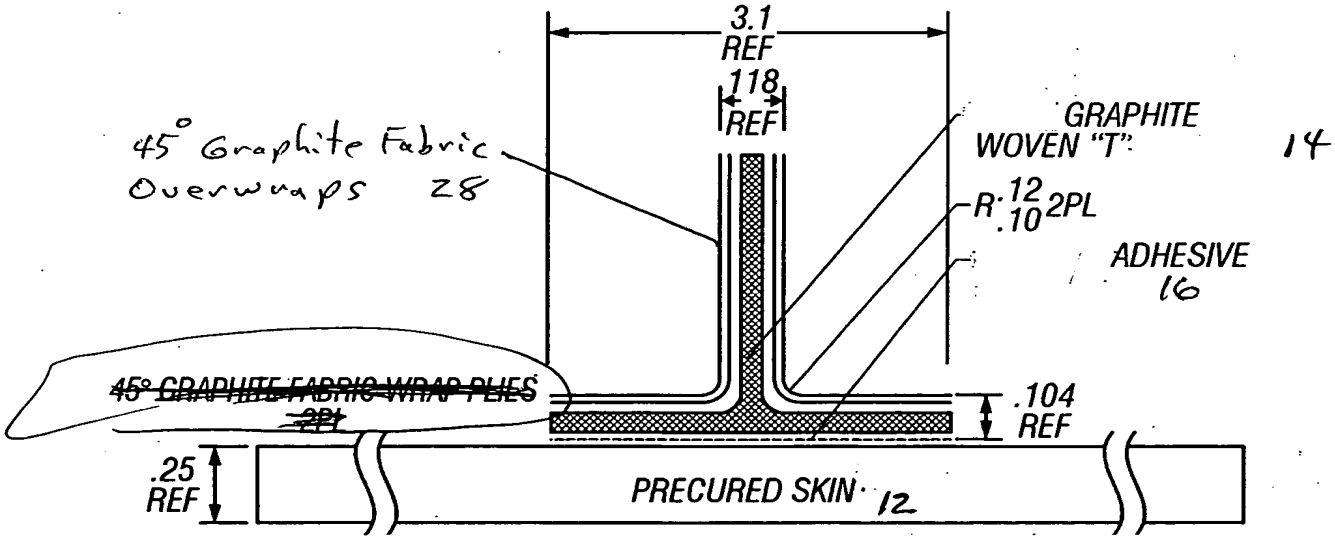

12
16
28
14
16
12

FIG. 6A



9

FIG. 9B



9

FIG. 9C

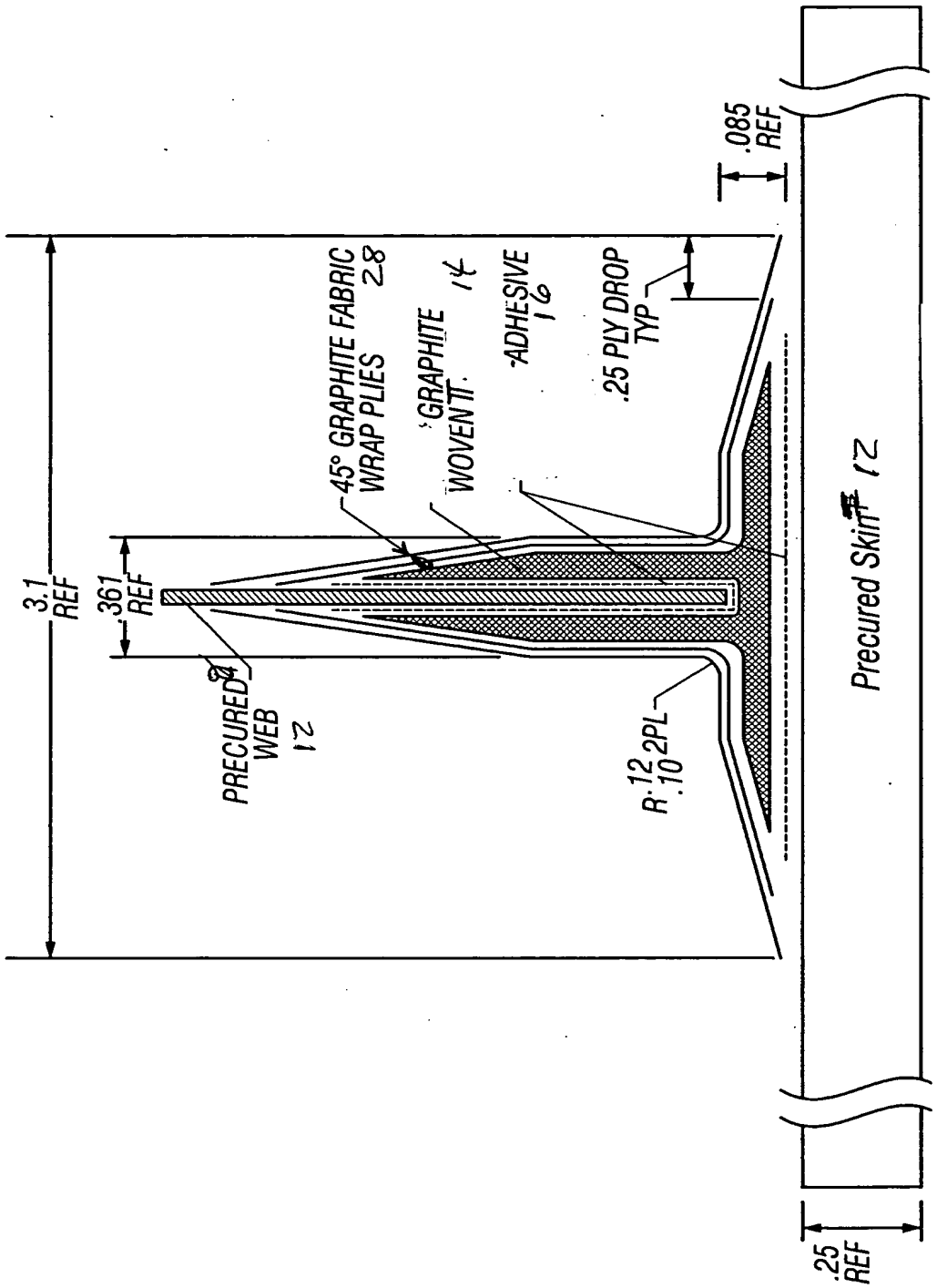

3.1
REF
.361
REF
PRECURED
WEB
12
45° GRAPHITE FABRIC
WRAP PLIES
28
GRAPHITE
WOVEN
14
ADHESIVE
16
.25 PLY DROP
TYP
R.12
.10
2PL
.085
REF
Precured Skin
12
.25
REF

FIG. 8D

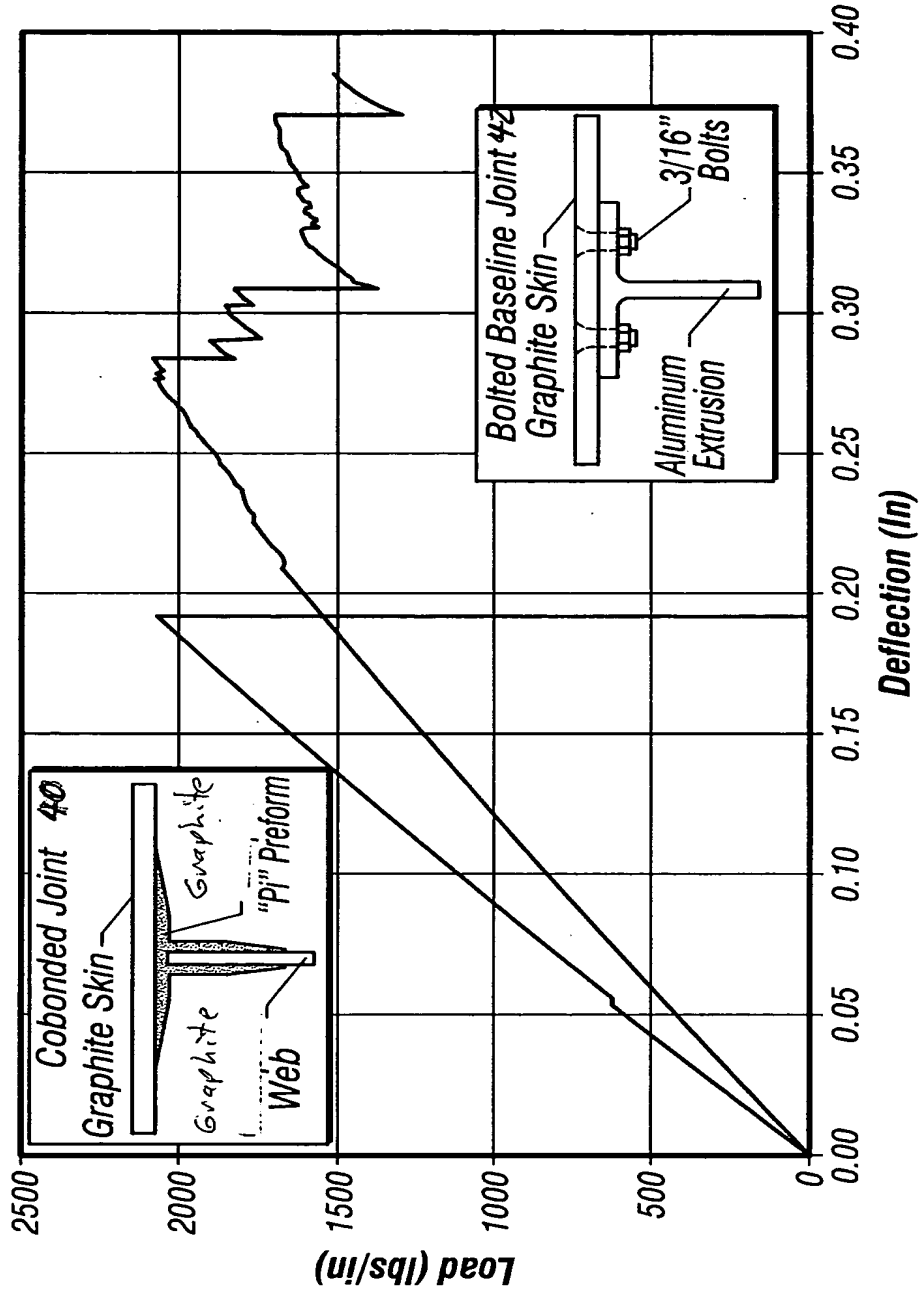

Load (lbs/in)
2500
2000
1500
1000
500
0
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
0.40
Deflection (In)
Cobonded Joint 40
Graphite Skin
Graphite
"PI" Preform
Graphite
Web
Bolted Baseline Joint 42
Graphite Skin
3/16" Bolts
Aluminum Extrusion

FIG. 10

PRINT OF DRAWINGS
AS ORIGINALLY FI

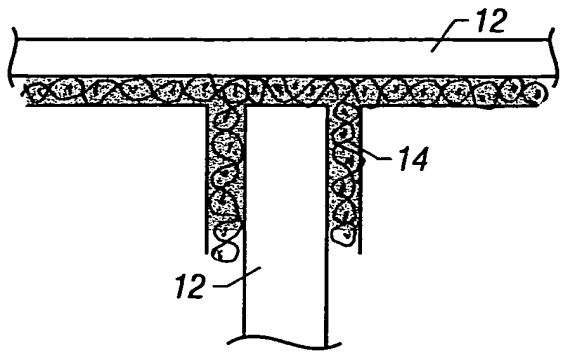


FIG. 3A

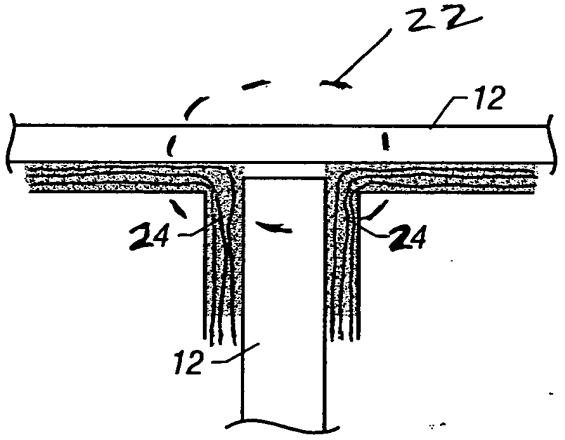


FIG. 3B

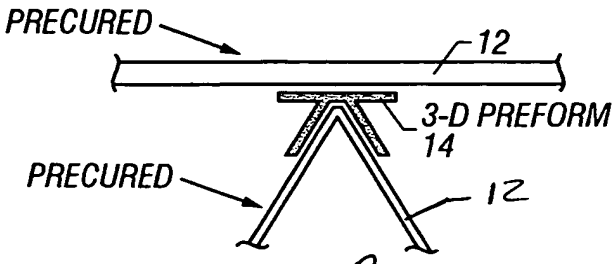


FIG. 4A

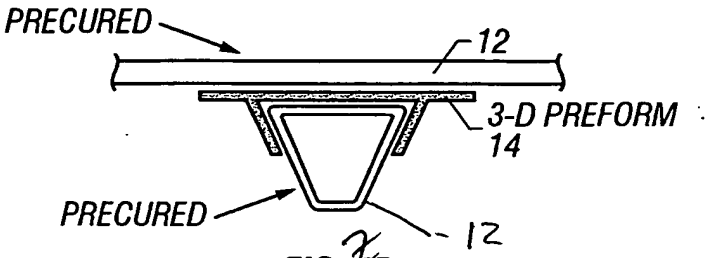


FIG. 4B

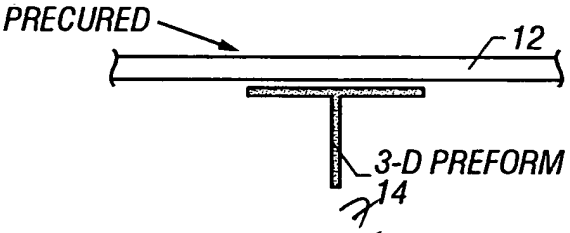


FIG. 4C

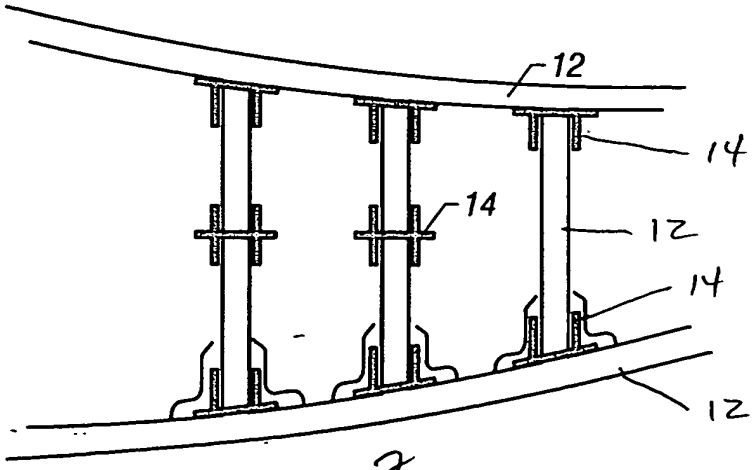


FIG. 4D

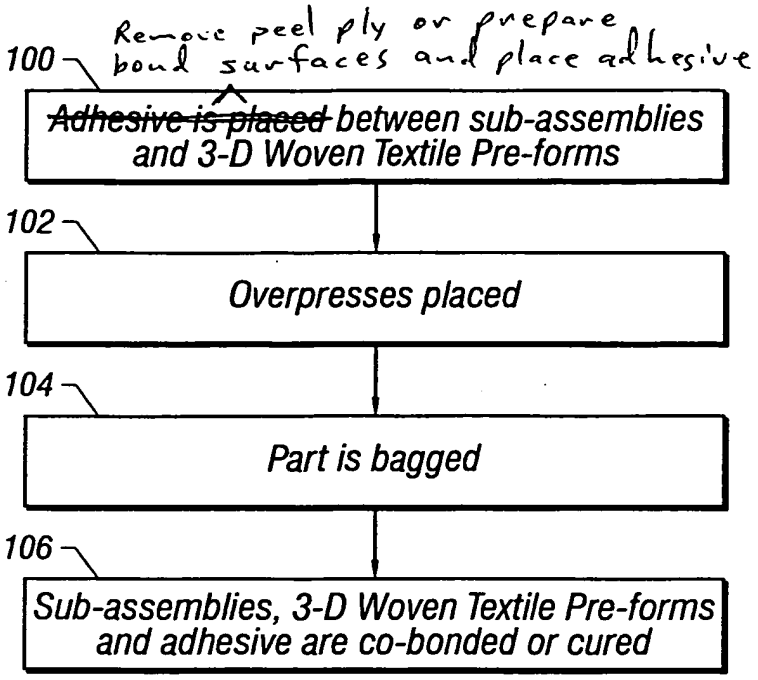
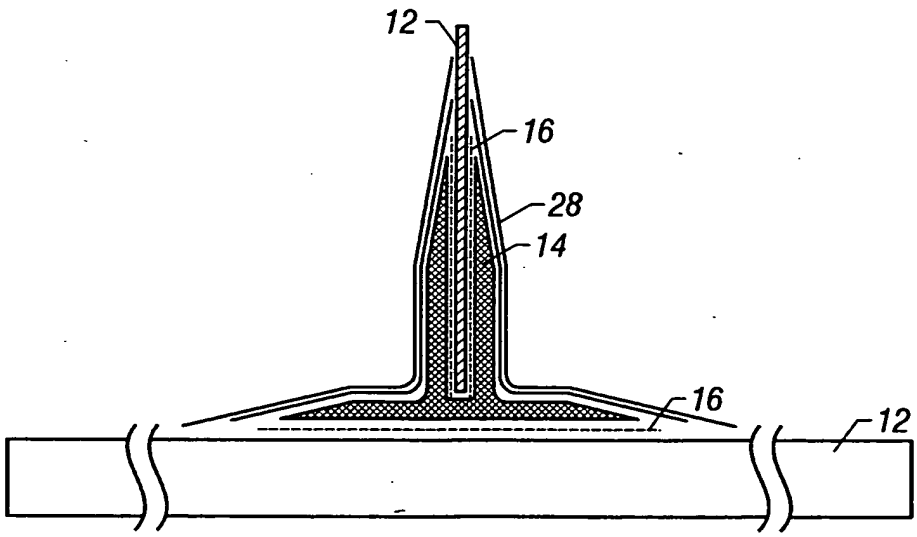
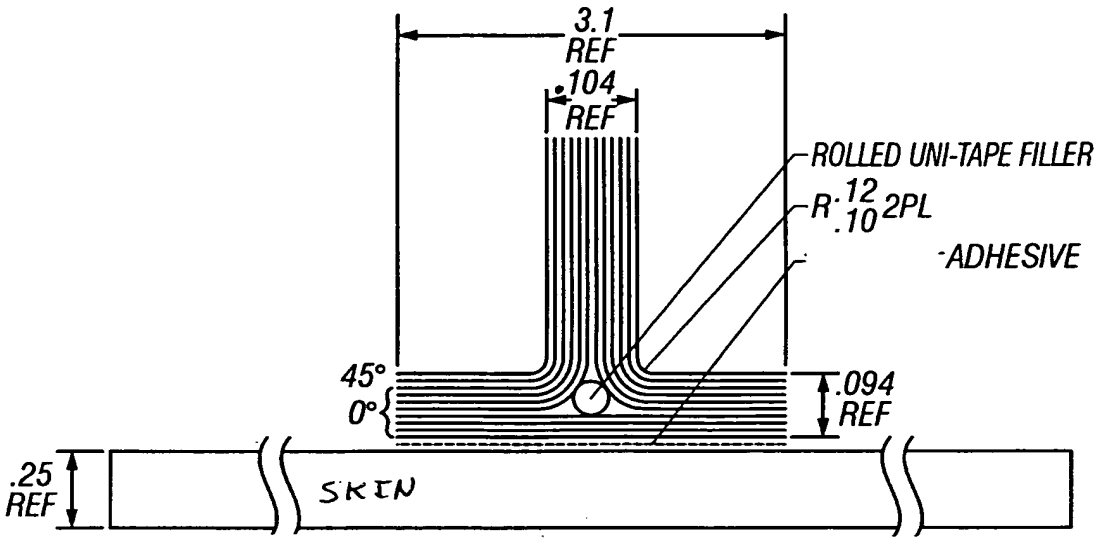


FIG. ~~5~~ 6



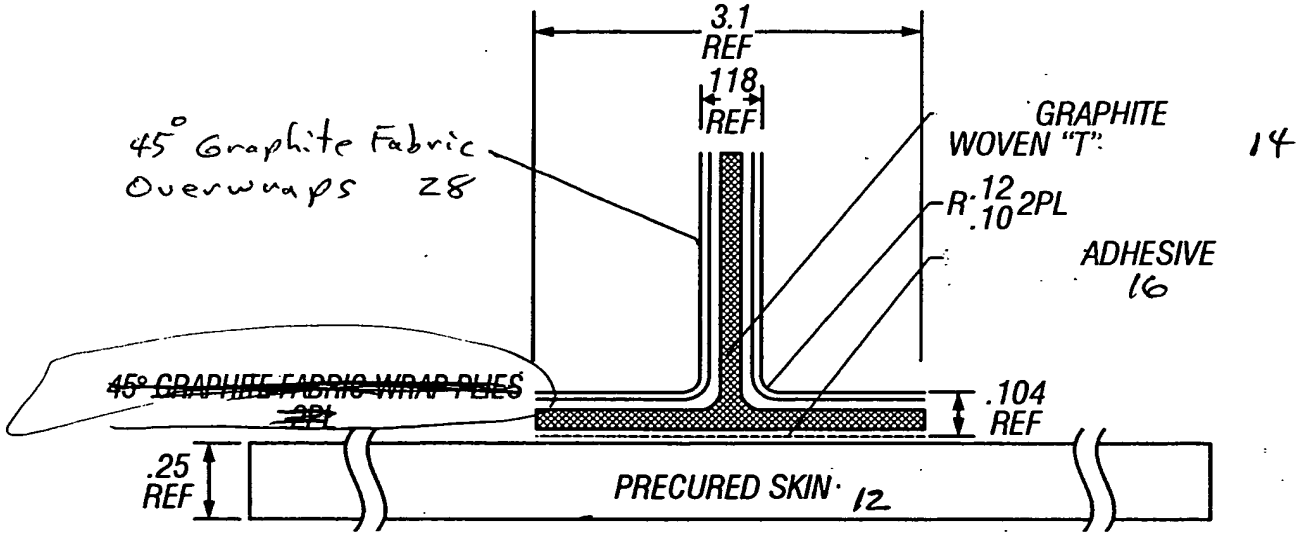
9

FIG. ~~6~~A



9

FIG. 8B



9

FIG. 8C

PRINT OF DRAWINGS
AS ORIGINALLY FI

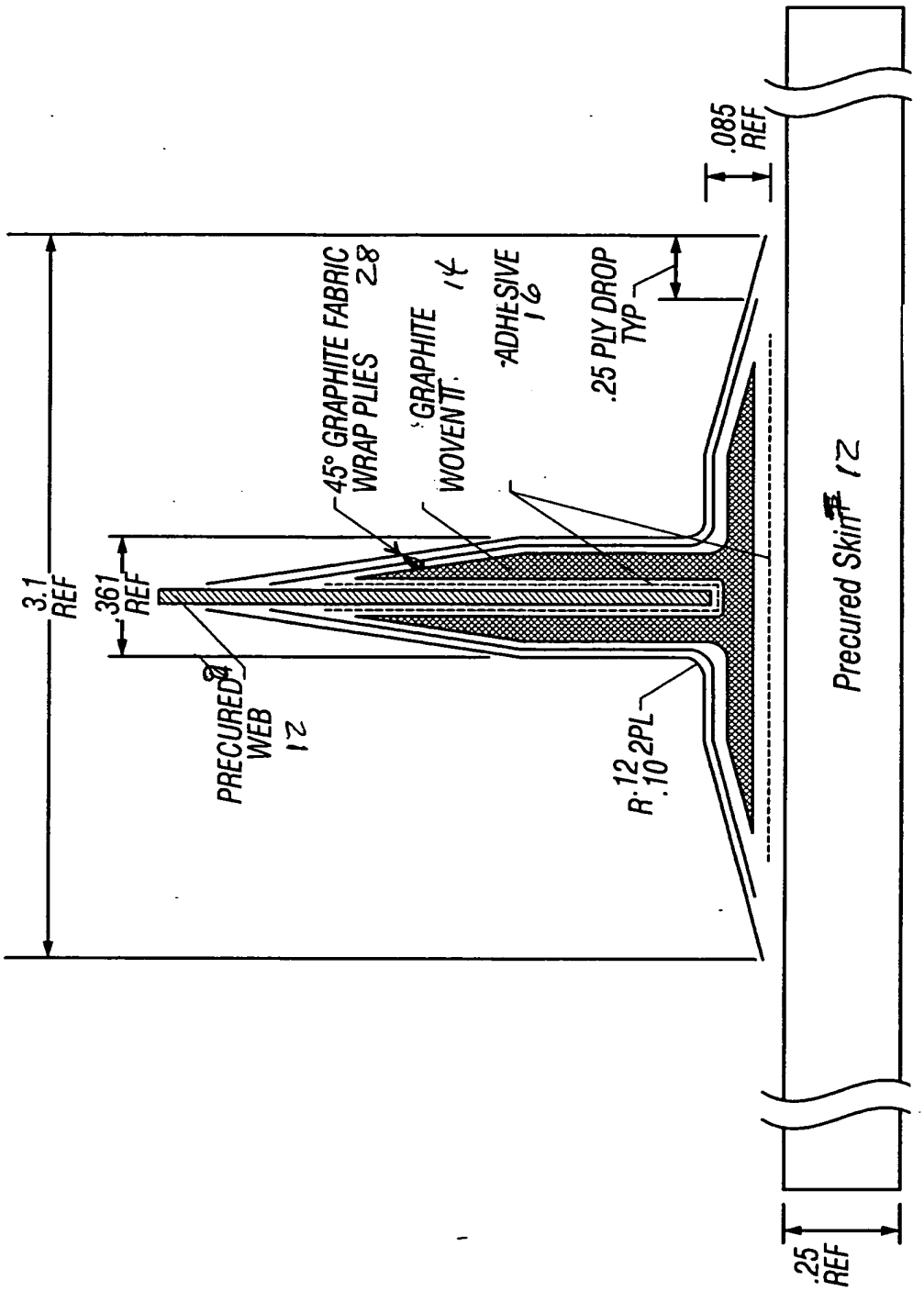


FIG. 8D

PRINT OF DRAWINGS
AS ORIGINALLY FI

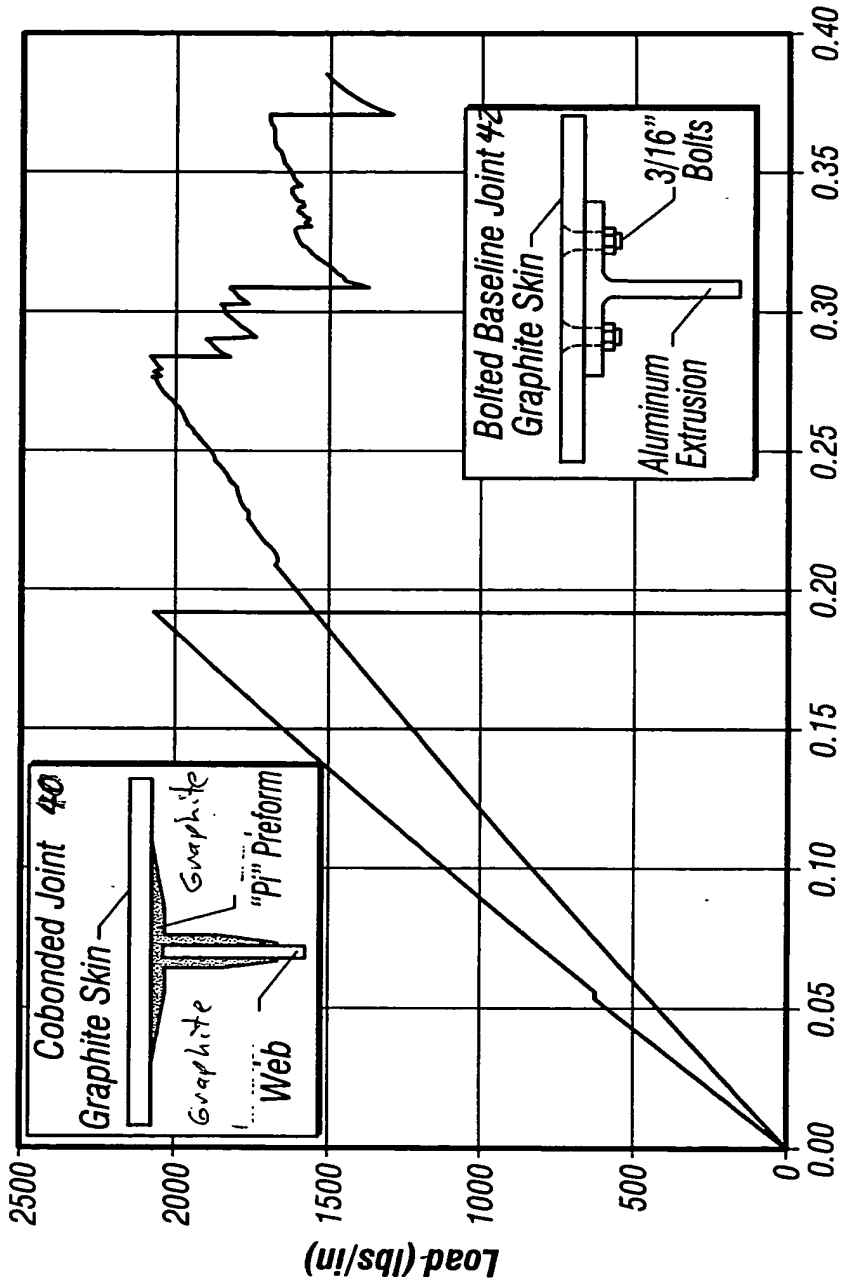


FIG. 7 (10)